

## CLAIMS:

1. A high-pressure discharge lamp comprising:  
- an inner vessel with a discharge chamber,  
- with at least two electrodes extending into the discharge chamber, and  
possibly an outer bulb surrounding the inner vessel,

5 characterized in that the discharge chamber contains an ionizable filling  
comprising:

- at least one rare gas,
- 0 mg to 10 mg of mercury, and
- a metal halide mixture comprising:  
10 \* 40 to 80% by weight of sodium halide,  
\* 25 to 55% by weight of scandium halide,  
\* 1 to 15% by weight of indium halide, and  
\* 0 to 34% by weight of thallium halide.

15 2. A high-pressure discharge lamp as claimed in claim 1, characterized in that the  
color point of the light emitted by the high-pressure discharge lamp in the CIE 1931 diagram  
has an X-color coordinate in a range from 0.345 to 0.375, preferably from 0.350 to 0.370,  
more preferably from 0.355 to 0.360, and a Y-color coordinate in a range from 0.350 to  
0.375, preferably from 0.355 to 0.370, more preferably from 0.360 to 0.365.

20 3. A high-pressure discharge lamp as claimed in claim 1 or 2, characterized in  
that the outer bulb comprises neodymium, preferably neodymium oxide, the neodymium  
oxide content being preferably 2 to 20% by weight with respect to the total weight of the  
outer bulb.

25 4. A high-pressure discharge lamp as claimed in any one of the claims 1 to 3,  
characterized in that the color temperature of the light emitted by the high-pressure discharge  
lamp lies in a range from 4300 K to 5000 K, preferably from 4500 K to 4900 K, more  
preferably from 4700 K to 4800 K.

5. A high-pressure discharge lamp as claimed in any one of the claims 1 to 4, characterized in that the luminous efficacy of the light emitted by the high-pressure discharge lamp is at least 70 lm/W, preferably  $\geq 75$  lm/W, more preferably  $\geq 85$  lm/W, even more preferably  $\geq 95$  lm/W.

6. A high-pressure discharge lamp as claimed in any one of the claims 1 to 5, characterized in that the color point change with respect to the X-color coordinate and the Y-color coordinate amounts to  $\leq 6\%$ , preferably  $\leq 5\%$ , preferably  $\leq 4\%$ , more preferably  $\leq 3\%$ , particularly preferably  $\leq 2\%$ , and most preferably  $\leq 1\%$  over a period of operation of the high-pressure discharge lamp of 1500 hours.

7. A high-pressure discharge lamp as claimed in any one of the claims 1 to 6, characterized in that the ionizable filling comprises:

- at least one rare gas, preferably xenon,
- 50 to 70% by weight of sodium iodide,
- 30 to 50% by weight of scandium iodide,
- 1 to 15% by weight of indium iodide, and
- 0 to 10 mg mercury.

8. A high-pressure discharge lamp as claimed in any one of the claims 1 to 6, characterized in that the ionizable filling comprises:

- at least one rare gas, preferably xenon,
- 50 to 60% by weight of sodium iodide,
- 35 to 45% by weight of scandium iodide,
- 1 to 15% by weight of indium iodide, and
- 0 to 10 mg mercury.

9. An ionizable filling, characterized in that said ionizable filling comprises:

- at least one rare gas,
- 0 mg to 10 mg of mercury, and
- a metal halide mixture comprising:
  - \* 40 to 80% by weight of sodium halide,
  - \* 25 to 55% by weight of scandium halide,

- \* 1 to 15% by weight of indium halide, and
- \* 0 to 34% by weight of thallium halide.

10. A lighting unit, in particular a motor vehicle headlight, comprising a high-  
5 pressure discharge lamp as claimed in any one of the claims 1 to 8.